

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Previously presented) A digital communication system, comprising:
 - a plurality of nodes interconnected through a fabric, at least one node comprising:
 - a plurality of network processing devices, at least one network processing device for receiving digital information, for determining a destination within the node for the digital information, and for providing the digital information to the destination;
 - a shared bus structure for coupling each of the network processing devices with each other; and
 - an interface for coupling the at least one network processing device with the fabric to support communication between nodes;
 - wherein each at least one node supports native transport of digital information to and from the fabric in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information;
 - wherein each at least one network processing device supports routing and forwarding of digital information within corresponding nodes in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information.
2. (Previously presented) The digital communication system of claim 1, wherein the destination is determined in response to at least one of stored routing rules and characteristics of the corresponding digital information.
3. (Canceled)

4. (Previously presented) The digital communication system of claim 1, wherein each at least one network processing device supports routing and forwarding of cell information and packet information simultaneously.
5. (Previously presented) The digital communication system of claim 1, wherein the at least one network processing device directly delivers the routed digital information into a memory of the destination.
6. (Previously presented) The digital communication system of claim 1, wherein the at least one network processing device supports peer-to-peer routing within corresponding nodes.
7. (Canceled)
8. (Previously presented) The digital communication system of claim 1, wherein the interface comprises a System Interface and a Maintenance Interface.
9. (Previously presented) The digital communication system of claim 8, wherein the interface comprises a multiplexer for creating a multiplexed stream of digital information in relation to the System Interface and the Maintenance Interface.
10. (Canceled)
11. (Previously presented) The digital communication system of claim 1, wherein the at least one node further comprises:
a general-purpose processor in operative communication with the shared bus structure for at least one of controlling the plurality of network processing devices of the corresponding node and performing maintenance on the corresponding node.
12. (Canceled)

13. (Canceled)

14. (Previously presented) The digital communication system of claim 11, wherein the general-purpose processor supports peer-to-peer routing with at least one of the network processing devices of the corresponding node.

15. (Previously presented) The digital communication system of claim 1, wherein the interface comprises at least one external system input/output interface supporting at least one transport mechanism type.

16. (Previously presented) The digital communication system of claim 15, wherein the at least one transport mechanism type comprising at least one of Asynchronous Transfer Mode, Internet Protocol, and Frame Relay.

17. (Previously presented) A communication node, comprising:

- a plurality of network processing devices, at least one network processing device for receiving digital information, for determining a destination within the node for the digital information, and for providing the digital information to the destination, the destination determined in response to at least one of stored routing rules and characteristics of the corresponding digital information;
- a shared bus structure for coupling each of the network processing devices with each other; and
- a System Interface and at least one of a Maintenance Interface and an external system input/output interface coupled to the at least one network processing device; wherein the communication node supports native transport of digital information to and from other nodes of a communication network in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information;
- wherein each at least one network processing device supports routing and forwarding of digital information within the communication node in a plurality of network

protocols, including network protocols for transporting cell information and network protocols for transporting packet information.

18. (Canceled)

19. (Previously presented) The communication node of claim 17, wherein each at least one network processing device supports routing and forwarding of cell information and packet information simultaneously.

20. (Previously presented) The communication node of claim 17, wherein the at least one network processing device directly delivers the routed digital information into a memory of the destination.

21. (Original) The communication node of claim 17, wherein the at least one network processing device supports peer-to-peer routing within the communication node.

22. (Previously presented) The communication node of claim 17, further comprising:
a multiplexer for creating a multiplexed stream of digital information in relation to the System Interface and the Maintenance Interface.

23. (Previously presented) The communication node of claim 17, further comprising:
a general-purpose processor for controlling the plurality of network processing devices, wherein the shared bus structure couples the general-purpose processor with each of the network processing devices.

24. (Canceled)

25. (Canceled)

26. (Previously presented) The communication node of claim 17, wherein the external system input/output interface is supportive of at least one transport mechanism

type, the at least one transport mechanism type comprising Asynchronous Transfer Mode, Internet Protocol, and Frame Relay.

27. (Canceled)

28. (Canceled)

29. (Previously presented) The digital communication system of claim 1 wherein each at least one network processing device supports routing and forwarding of cell information and packet information in parallel.

30. (Previously presented) The digital communication system of claim 1 wherein each at least one node supports native transport of cell information and packet information simultaneously.

31. (Previously presented) The communication node of claim 17 wherein each at least one network processing device supports routing and forwarding of cell information and packet information in parallel.

32. (Previously presented) The communication node of claim 17 wherein the communication node supports native transport of cell information and packet information simultaneously.

33. (Previously presented) A digital communication system, comprising:
a plurality of communication nodes interconnected through an interconnect fabric, at least one communication node comprising:
a plurality of network processing devices;
a shared bus structure coupling the plurality of network processing devices with each other; and

a plurality of interfaces, at least one interface coupling at least one network processing device with the interconnect fabric to support communication with other communication nodes of the plurality of communication nodes;

wherein the at least one network processing device receives digital information from the plurality of interfaces and the plurality of network processing devices, determines a destination for the digital information, and provides the digital information to the determined destination;

wherein each at least one communication node supports native transport of digital information to and from the interconnect fabric in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information;

wherein each at least one network processing device supports routing and forwarding of digital information within corresponding communication nodes in a plurality of network protocols, including network protocols for transporting cell information and network protocols for transporting packet information.

34. (Previously presented) The digital communication system of claim 33 wherein each at least one network processing device supports routing and forwarding of cell information and packet information simultaneously.

35. (Previously presented) The digital communication system of claim 33 wherein each at least one network processing device supports routing and forwarding of cell information and packet information in parallel.

36. (Previously presented) The digital communication system of claim 33 wherein each at least one node supports native transport of cell information and packet information simultaneously.